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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,435	11/20/2001	Michael H. Jander	24001B	7530

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OWENS CORNING  
2790 COLUMBUS ROAD  
GRANVILLE, OH 43023

EXAMINER
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YAO, SAMCHUAN CUA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/993,435	Applicant(s) JANDER, MICHAEL H.	
	Examiner Sam Chuan C. Yao	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 8-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 26-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 and 26-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art (APA) in view of (Stoops et al (US 4,141,929) or Grisch (US 4,207,282)) and further in view of Stotler et al (US 4,601,741).

The APA, drawn to an SMC, substantially discloses a structure of an SMC recited in claim 1 (page 7 lines 8-16; figures 1B and 2A). The SMC of the APA differs from the SMC recited in claim 1 in that, the APA does not teach using a *"resin impregnated filamentized fiber layer"*. However, it would have been obvious in the art to provide continuous axially aligned filaments to a resin paste layer taught by the APA, because Stoops et al teaches embedding continuous axially aligned filaments to a resin paste layer in forming a sheet molding composition in order to form composite articles having *"excellent parallel flexural strength from the standpoint of strength in a direction normal or perpendicular to the continuous filaments"* (abstract; col. 1 lines 7-33; figure 1). **Alternatively**, it would have been obvious in the art to provide a barrier fabric comprising a continuous filamentized fiberglass mat to a resin paste layer of an SMC of the

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APA, because Grisch discloses providing a barrier fabric (30) comprising a *"continuous filament fiberglass mat"* in forming an SMC so that the fabric *"holds the reinforcing fibers internal to the composite while allowing the resin to pass therethrough to be deposited at the surface of the composite article formed."* (col. 2 line 55 to col. 3 line 24; figures 3). Note: although not explicitly disclosed, a *"continuous filament fiberglass mat"* suggested by Grisch is taken to comprise filamentized glass fibers, because it is well known in the art to form a fiberglass filamentary mat comprising unbundled continuous filaments. In any event, it would have been obvious in the art use *"a mat of highly dispersed or filamentized continuous glass filaments"* informing an SMC of the APA as modified by Grisch, because it is well known in the art to form *"a mat of highly dispersed or filamentized continuous glass filaments"* where a desirable tensile strength is maintained as exemplified in the teachings of Stotler et al (abstract; col. 1 lines 7-32). For this reason, a filamentized fiber layer failed to define over a continuous filamentized fiberglass mat.

With respect to claim 2, see column 5 lines 20-23 of the Grisch patent.

With respect to claim 4, the recited composition in this claim is taken to be conventional in the art.

With respect to claim 5, Grisch teaches using chopped glass filaments. And also see paragraph 18 of present application for discussion of Applicant's admitted prior art. Since E-glass reinforcing fibers is conventional in the art, this claim would have been obvious in the art.

With respect to claims 6-7, it is a common practice in the art to incorporate staple and/or filamentary conductive fibers into a reinforcing fibers in making a molded composite in order to form an electromagnetic wave shielding composite.

With respect to 26-44, these claims are substantially the same limitations as the above rejected claims, for essentially the same reasons set forth above, these claims would have been obvious in the art.

### ***Response to Arguments***

3. Applicant's arguments filed 07-26-05 have been fully considered but they are not persuasive.

On pages 3-5, Counsel repeatedly argues that, neither the APA nor the Stoops et al patent teaches a *"sheet including both (a) a plurality of chopped unfilamentized [or partially filamentized] fibers and (b) a resin impregnated filamentized fiber layer"* (words inserted) as recited in the claims. Examiner agrees. That's precisely the reason why the claims as presently recited are rejected under 35 USC 103 instead of under 35 USC 102. If Counsel's arguments hold true, then it would appear that only a 35 USC 102 would have been valid in making an art rejection. It is respectfully submitted that, the main issue here is: whether or not, it would have been obvious in the art to modify an SMC of the APA by providing continuously axially aligned filaments or a filamentized barrier mat to a resin layer of an SMC of the APA. As noted above, it would have been obvious in the art to provide continuous axially aligned filaments to a resin paste layer taught by the APA, because Stoops et al teaches embedding continuous axially aligned

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filaments to a resin paste layer in forming a sheet molding composition in order to form composite articles having *“excellent parallel flexural strength from the standpoint of strength in a direction normal or perpendicular to the continuous filaments”* (abstract; col. 1 lines 7-33; figure 1).

**Alternatively**, it would have been obvious in the art to provide a barrier fabric comprising a continuous filamentized fiberglass mat to a resin paste layer of an SMC of the APA because, Grisch discloses providing a barrier fabric (30) comprising a *“continuous filament fiberglass mat”* in forming an SMC so that the fabric *“holds the reinforcing fibers internal to the composite while allowing the resin to pass therethrough to be deposited at the surface of the composite article formed.”* (col. 2 line 55 to col. 3 line 24; figures 3). Note: a *“filamentized fiber layer”* is taken to read on *“continuous filament fiberglass mat”* suggested by Grisch, because the continuous filaments in the fiberglass mat are reasonably expected to be comprised of unbundled continuous filaments. In any event, it would have been obvious in the art use *“a mat of highly dispersed or filamentized continuous glass filaments”* informing an SMC of the APA as modified by Grisch, because it is well known in the art to form *“a mat of highly dispersed or filamentized continuous glass filaments”* where a desirable tensile strength is maintained as exemplified in the teachings of Stotler et al (abstract; col. 1 lines 7-32).

As for Counsel’s argument on page 4 lines 1-7 that, there is no suggestion that any advantage would be achieved by producing an SMC sheet with the claimed

combination of structures (a) and (b) set forth above, Examiner disagrees. As noted above, one in the art would have been motivated to provide continuous axially aligned filaments to a resin paste layer taught by the APA, because Stoops et al teaches embedding continuous axially aligned filaments to a resin paste layer in forming a sheet molding composition in order to form composite articles having *"excellent parallel flexural strength from the standpoint of strength in a direction normal or perpendicular to the continuous filaments"* (abstract; col. 1 lines 7-33; figure 1). **Alternatively**, one in the art would have been motivated to provide a barrier fabric comprising a continuous filamentized fiberglass mat to a resin paste layer of an SMC of the APA because, Grisch taken with Stotler et al would have suggested to one in the art to provide a barrier fabric (30) comprising a continuous filamentized fiberglass mat in forming an SMC so that the fabric *"holds the reinforcing fibers internal to the composite while allowing the resin to pass therethrough to be deposited at the surface of the composite article formed."* (col. 2 line 55 to col. 3 line 24; figures 3). Note: an invention may be obvious for a different reason than that addressed by the inventor. E.g., In re Dillon, 16 USPQ 2d 1887 (Fed.Cir 1990). The fact that applicant has recognized another advantage which would flow naturally from the teachings of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. In re Obiaya, 227 USPQ 58 (PTO Bd Appl 1985).

On page 6 lines 1-12, Counsel argues that *"...only glass mats indicated include a continuous filament fiberglass mat and a woven fiberglass mat and neither of*

*these is filamentized. Thus, by the nature of these examples, Grisch actually teaches away from a filamentized layer*" (emphasis in original). Examiner strongly disagrees with Counsel's assertion that, "*Grisch actually teaches away from a filamentized layer*". As noted above, a filamentized fiber layer fails to distinguish over "*a mat of highly dispersed continuous glass filaments*". Since, as noted above: a) it would have been obvious in the art to provide "*a mat of highly dispersed continuous glass filaments*" to a resin paste layer of an SMC of the APA; and, b) a filamentized fiber layer fails to distinguish over "*a mat of highly dispersed continuous glass filaments*", then the recited independent claims fail to define over the applied prior art references.

As for Counsel's arguments on pages 7-8 regarding independent claims 33 and 39, Counsel's arguments relating to these claims are merely repetition of presented above, Counsel's arguments are not found to be persuasive for reasons set forth above.

### **Conclusion**

In light of a new ground of rejection, the present office action is made non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone



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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sam Chuan C. Yao  
Primary Examiner  
Art Unit 1733

Scy  
02-24-05